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ABSTRACT

Based on data gathered during a full 5-day, 40-hour week of visiting time, this study determined various characteristics of visitors to the New York State Library (NYSL) main facility: e.g., traffic rates, user intent, and user status. Visitors exiting the library were counted, short interviews were conducted with 25 percent of the total visitors counted, and traffic flow data were used to determine appropriate weightings for interview results obtained from different time intervals. It was found that NYSL averages 313 different visitors per day, with Tuesday being the busiest of the week. Forty-two percent of visits are made in connection with New York State government activity, and more than half of all visitors are government employees. The report details the study methodology, analyzes the results, and suggest areas for further study. Tables illustrate the findings. (FM)

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A Study of Use of the New York State Library by Visitors

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April 30, 1981

IR009594

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Contents

Abstract

Introduction

Method

- General
- Exit Traffic Counting
- Interviewing
- Data Reduction

Results

- Daily Traffic of Visitors
- Projections: Library Visits, Library Visitors
- Visitor Interests and Affiliations
- Cautionary Reminder

Areas for Further Study

References

Figures

1. New York State Library user exit interview guide.

2. Library exit traffic, 15-minute intervals.

3. Simplified models of exit traffic.

4. Profile of daily exit traffic.

5. Frequency of visits by visit duration.

6. Traffic inflow and outflow, half-hourly.

7. Library occupancy, half-hourly.

Tables

1. Adjusted traffic counts for day and for week.
2. Interviews recorded and weighting factors.
3. Duration of visits.
4. Average traffic inflow, outflow, and occupancy by half-hourly intervals.
5. Frequency of previous visits.
6. Projections of visits and visitors.
7. Main purpose for visit.
8. Context of visit.
9. Employment status.
10. New York State or government agency employment of persons interviewed.
11. Unsolicited visitor comments.

Abstract

A study was conducted of use and users of the New York State Library (NYSL), to determine various characteristics of traffic rates, user intent, and user status. The study addressed only the use of the NYSL by visitors to the main facility, excluding non-visitor use of the library and use of auxiliary library areas.

Data were collected during a full five-day, 40-hour week of visiting time. During this period, a full count was made of visitors who exited the library. Throughout the period also, short interviews were conducted with a sampling of exiting visitors. Traffic flow data were used to determine appropriate weightings for interview results obtained from different time intervals. Traffic data were corrected for overcounts due to inadvertant counting of library staff members among the visitors. The interview sample was one fourth of the total visitor count. Interview refusals amounted to 6 percent of attempted interviews.

User traffic averaged 370 visits per day during the test period. There was some traffic variation from day to day, with Tuesday being the busiest day of the week. Some visitors make more than one visit during a single day. The average number of different visitors per day was 313. Data were obtained from visitors on the frequency of their previous visits to the library during the last 12 months. Projecting from this information, it appears that, over a full year, NYSL has about 93,000 visits from about 20,000 different visitors.

Profiles of entry and exit traffic and of visitor occupancy rates throughout the day were determined. Occupancy stays fairly close to the peak figure (74 visitors) from 11 AM to 3 PM, and averages about 54 through a full day.

Reasons for user visits to NYSL vary widely, but visits to find material on a particular topic ("subject search") predominate. More than 42 percent of the visits to NYSL are made in connection with New York State government activity; but personal research, school activity, and non-governmental work all account for substantial numbers of visits

as well. Government employees make more than half of all visits to NYSL; some of these visits are for personal research. Government employees who use NYSL come from many different agencies. Unsolicited comments by visitors regarding NYSL indicate considerable interest in having visiting hours extended to evenings and weekends.

Areas and topics are identified that might be considered for future research on the use and users of NYSL.

Introduction

This is a report on a study of the use of the New York State Library (NYSL) by visitors. NYSL is located in the Cultural Education Building in Albany. The study was undertaken at the invitation of NYSL's Director, Peter J. Paulson. The study selected aspects of visitor traffic rates, visitor objectives, and visitor demographics. The data gathered in the study have yielded valuable tabulations, profiles, and projections regarding NYSL utilization and clientele. Data were gathered by two means: physical counts of visitor traffic, and interviews with a sizable sample of visitors. Statistical methods were used to normalize interview data for purposes of presentation and interpretation.

It must be emphasized that the objectives and scope of the study were limited; this was not a comprehensive survey of the many ways in which NYSL is used. It was limited to use of NYSL by visitors; thus, use of NYSL by U.S. mail, interagency mail, telephone, telex, and computer network were all disregarded in this study. Furthermore, the visitors studied were only the ones who used the main facility of NYSL, which is accessible through the 7th floor elevator stop in the Cultural Education Center building; the much smaller clientele of the 11th floor reading room of NYSL was not studied. These omissions should be kept in mind when reading and using the report.

It should be noted that the study, while intensive, covered only one particular week of visitor use of NYSL. Extrapolations and projections to longer periods or different periods should be regarded as highly tentative unless and until there is better knowledge of any variability of use patterns throughout the full year. Budget limitations did not permit such investigation as part of this study. However, the study was designed in such a manner that it can be repeated easily in the future.

Grateful acknowledgement is given to the people who have assisted in carrying out this study. Most of the traffic counting and interviewing work was performed by Jane M. Arvanites, Carolyn A. Lipetz, Elaine M. Rothman, Linda S. Snyder, and Linda

S. Swieszkowski. Three members of this research team are enrolled in master's degree programs of the School of Library and Information Science, State University of New York at Albany; one member is a recent graduate of the School's master's program. Elaine Rothman and Carolyn Lipetz helped also with data reduction. The staff of the NYSL Director provided invaluable secretarial assistance in preparing and duplicating interview forms and in preparing and duplicating this report; Peter Paulson, the Director, participated personally in the design of the interview form.

Method

General

Open hours of NYSL are 9 AM to 5 PM on Monday through Friday, except for official State holidays. Data for this study were collected throughout a complete one-week period: March 23-27, 1981. All of the data collected related to persons exiting the main facility of NYSL through the 7th floor check-out aisle that opens onto the public elevator vestibule. This is the only exit available to Library visitors, although staff members may exit elsewhere by using staff elevators with restricted access.

At least two (usually three) members of the research team were on hand to collect data throughout the entire 40 hours of open time in the test week. The strategy used in data collection was derived from a large user study that was conducted at Yale University Library some years earlier (1, 2). Two types of data were collected concurrently: One team member counted all exiting persons other than Library staff and recorded the counts for regular (15-minute) intervals throughout the test period. The other team member(s) conducted interviews with a sampling of persons exiting during each counting period. The interviews were very short and carefully structured; they asked a few simple questions regarding the interviewee's use of NYSL and regarding his/her place of residence or employment. Details and nuances of the data collection activity are given below. No difficulties were encountered in actual data collection, but special actions were necessary to assure validity of the data.

After collection, data were reduced by manual tabulation and statistical adjustment. Two kinds of adjustment were made: Traffic counts were adjusted to allow for the proportion of exiting staff members who had erroneously been counted as visitors. Counts taken from interview results had to be weighted to adjust for differences in the ratio of interviews conducted to exit counts in the different test intervals.

Exit Traffic Counting

Exit traffic was observed from a corner of the 7th floor public elevator vestibule that afforded an excellent view of the NYSL check-out aisle. The count of exiting non-

staff persons was registered on a hand-held counter, starting with Library opening at 9 AM. Every 15 minutes, the reading of the counter was entered on a tally sheet. The 15 minute intervals were defined at first with the help of a darkroom timer with a bell alarm; after two days, it was found to be just as acurate and far more convenient to use a nearby wall clock for defining the intervals.

Traffic counts recorded in 15 minute intervals varied throughout each day and also from day to day. They varied from a low of zero (recorded only once, early Monday morning) to a high of 36 (preceding Tuesday noon). Average counts varied somewhat from day to day, ranging between 12 and 14.

In theory, only persons other than NYSL staff members were to be counted. In practice, there was no way to avoid inclusion of some staff members in the count. Staff members are expected to wear identification badges for recognition. Indeed, most did. However, some staff members either did not wear badges when exiting the Library or else had put coats over them. Unless such people were known to the data collectors, they were unavoidably counted as visitors, introducing an unknown error into the count of presumed library users.

Because it was recognized that the miscount of staff members might gravely distort the study results, an additional statistic was added to the traffic counting routine to afford a basis for adjustment of the distorted counts. Starting on the third day of the test period, counts were recorded of any persons approached for an interview in an interval but who were not interviewed because they proved to be staff members. By using the perfectly reasonable assumption that the measurable proportion of staff people erroneosly aproached for interviews was the same as the proportion of staff people erroneously counted as visitors in the traffic counts, it became possible to determine the correction factor to be applied to the traffic counts.

In two instances some persons who were known not to be on the Library staff were

deliberately excluded from the count of visitors. These were instances when police officers came to the Library to handle minor incidents and were obviously not engaged in making use of the Library.

Interviewing

The general plan in interviewing was to try to obtain several interviews with exiting visitors during each 15-minute interval, always starting with the first visitor to exit after the beginning of an interval. The interviews (described below) generally required only two minutes or so to conduct. Another minute or so was needed to complete the reporting form. On the first day of the test period, interviewers were instructed to interview visitors one after another for the first ten minutes or so of a period. More interviews were completed than had been expected - about a hundred. These instructions were modified on subsequent days, following scrutiny of the traffic counts for the first day. Since traffic was obviously lighter earlier in the day and heavier later in the day, the interviewing routine was changed so as to complete somewhat more interviews in the heavy traffic periods and fewer in the morning hours. Intervals were divided into fractions for the purpose of attempting interviews; the modification yielded, roughly, two completed interviews per interval in the light traffic hours and four per interval in the heavy traffic hours - about 90 per day. The total number of interviews completed in the week was exactly 25 percent of the exit traffic.

Refusal of visitors to be interviewed was not a serious problem. Research team members were instructed to accept refusals gracefully and not badger reluctant visitors. On the first day, the refusal rate for attempted interviews was just under 11 percent - all persons claiming to be in a hurry to go somewhere. By changing the instructions to interviewers only slightly, this refusal rate was cut in half on subsequent days. The difference in technique was merely to move more quickly in approaching a prospective interviewee, and to start the contact before, not after, the person had pressed the elevator call button.

FIGURE 1.

NEW YORK STATE LIBRARY USER EXIT INTERVIEW GUIDE

Day: W Th F Date _____

Time (nom.): ____:____ a.m. p.m. Interviewer _____

Start time: ____:____ ____ Refused; reason _____

Pardon me, I'm working with the Library to conduct a survey of how the Library is being used. Would you let me have a minute or two of your time to ask a few questions?

1. Are you a member of the Library staff?
   ____ No ____ Yes. End of interview. "Thank you."

2. Is this your first visit to the Library?
   ____ No ____ Yes. Go to Question 4.

2.a. Did we interview you earlier today or earlier this week?
   ____ No ____ Yes When? _____

3. In the last 12 months, on about how many days would you estimate you were here? _____

4. Were you in and out of the Library earlier today? First time in? _____
   ____ No ____ Yes How many times? _____

5. About what time did you get here (this last time)? ____:____

6. Why did you come to the Library (this time)?
   Main reason (X) Other reasons X

   e.g.
   ____ Sightseeing, looking around
   ____ To return a borrowed book
   ____ To look at a particular publication
   ____ To look for material on some topic
   ____ To look for material by some author/source
   ____ To verify a reference, bibliographic info.
   ____ To do genealogy
   ____ To talk to a librarian, guidance
   ____ To use special (blind) equip.
   ____ To photocopy some material
   ____ To attend a meeting
   ____ To sell
   ____ Social Call
   ____ Other _____
   ____ To borrow a particular book

7. Was your visit here connected with:
   ____ N.Y. State government activity
   ____ Other government activity
   ____ Work related (non-government)
   ____ School work
   ____ Personal research
   ____ Other

8. Are you:
   ____ N.Y. State or government agency employee; agency and location: _____
   ____ N.Y. State Legislature member or staff
   ____ A student; school and location _____
   ____ In private employment in Albany area
   ____ None of above; residing in _____

9. "Thank you very much." Ending time: ____:____.
   Remarks: _____

During the five-day test period, 495 interviews were attempted. Of these, 463 were completed. The 32 refusals amounted to a highly acceptable 6 percent refusal rate. The completed interviews constituted a 25 percent sample of observed traffic.

The interview guide (Figure 1) was duplicated and used as a form for recording interview data.

The first question served to verify that the interviewee was indeed a visitor and not a staff member. If the person turned out to be a staff member, the interview was aborted, and from the third day onward the fact of misidentification was reported to the traffic counter for entry on the interval tally sheet. Measured misidentification rates ranged from 5 percent to 10 percent on different days.

It can be seen from the interview guide that the intent was to ask only very clear, simple, non-leading questions. Question 2 identifies first-time visitors to NYSL. Question 2a identifies persons who have been interviewed more than once; it is intended primarily for use in adjusting interviewing schedules in any future studies of this kind at NYSL. Question 3 gets at the frequency of use of NYSL by individuals. Questions 4 and 5 address the frequency of leaving and returning on the same day (there are no food facilities for visitors within NYSL). Question 6 asks why the visitor came to NYSL; the interviewer would offer the listed possibilities only if the interviewee seemed hesitant in answering the neutral question. Questions 7 and 8 ask about particulars of visitor motivation and employment that are of special interest to NYSL. Unsolicited comments about NYSL were made by some of the persons interviewed; these comments were recorded at the bottom of the interview form. The interviewers initialed each form completed and also recorded starting and ending time for each interview.

Data Reduction

As mentioned above, two different adjustment or weighting factors were determined for application to the raw data.

Traffic counts were adjusted to correct for mistaken counts of Library staff mem-

bers. The adjustment was based on the percentage of persons approached for interviews on a given day who proved to be staff members. These percentages were available from exact measurements on Wednesday, Thursday, and Friday. The trend line for these days were extrapolated backwards to derive (somewhat higher) adjustment percentages for Monday and Tuesday. The correction percentage for each day was applied uniformly to all interval exit traffic counts for that day; no attempt was made to determine any change in adjustment rate within a given day. The five daily adjustment percentages were 10.1, 9.9, 9.9, 5.7, and 9.6, respectively.

Weighting factors were calculated for normalizing counts to be taken from interview data. These factors were needed because the number of interviews completed in different time periods represented varying proportions of actual exit traffic in the time periods. To use interview data without any weighting would be to risk distortion of results that might be linked to time of day. Although it would be possible to calculate a set of weighting factors for each of the five test days, it was decided, for economy, to calculate only one set of weights for the week as a whole. This was accomplished by first adding all five of the adjusted traffic counts for each 15-minute time interval (9 AM to 5 PM) and then determining the percentage of total weekly adjusted traffic represented by that 15-minute interval. The weighting factor to be applied to that interval is the number that, multiplied with the actual number of interviews in the interval, yields the same percentage of total interviews as the respective percentage of total traffic.

Table 1 gives the adjusted traffic count for each 15-minute interval in each test day, and the weekly total and weekly average for each interval. It also gives the proportion or percentage of total adjusted traffic represented by each 15-minute interval, half-hourly interval, and hourly interval in an average day.

Table 2 gives daily counts of usable interviews by 15-minute interval, together with the weekly totals and averages. This table also shows the percentage of total interviews obtained during each 15-minute interval and during each hourly interval. The weighting factor and traffic percentage for each hourly interval are also derived.

TABLE 1.

ADJUSTED TRAFFIC COUNTS FOR DAY AND FOR WEEK

Interval Ending	Adjusted Traffic Counts							Percentage of Average Daily Total		
	Mon	Tues	Wed	Thur	Fri	Total	Av.	15-Min	½-Hr	Hour
9^{15}	0	2.0	0.9	1.0	1.8	5.7	1.1	0.30		
9^{30}	1.0	2.9	2.8	1.9	2.9	11.5	2.3	0.62	0.92	
9^{45}	2.0	8.3	7.5	4.0	4.7	26.5	5.3	1.4		
10	5.6	1.0	2.9	1.0	12.8	23.3	4.7	1.3	3.7	3.6
10^{15}	10.2	8.3	4.7	2.0	7.4	30.6	6.1	1.7		
10^{30}	2.8	10.1	10.1	7.7	6.5	37.2	7.4	2.0	3.7	
10^{45}	5.8	9.2	6.5	7.7	10.0	39.2	7.8	2.1	c	
11	5.6	9.2	3.8	9.6	9.2	37.4	7.5	2.0	4.1	7.8
11^{15}	6.7	15.5	6.5	7.7	8.3	44.7	8.9	2.4		
11^{30}	5.7	11.0	8.3	10.5	9.2	44.7	8.9	2.4	4.8	
11^{45}	6.6	22.0	10.1	15.2	14.7	68.6	13.7	3.7		
12	14.3	32.4	11.2	14.4	7.5	85.3	17.1	4.6	8.3	13.7
12^{15}	8.3	9.4	12.0	27.5	14.8	72.0	14.4	3.9		
12^{30}	17.3	13.9	7.4	13.4	18.4	70.4	14.1	3.8	7.7	
12^{45}	19.4	12.9	11.1	17.2	11.2	71.8	14.4	3.9		
1	14.8	12.8	18.3	13.4	12.9	72.2	14.4	3.9	7.8	15.5
1^{15}	16.6	8.3	17.6	12.4	7.6	62.5	12.5	3.4		
1^{30}	15.8	12.8	13.9	16.3	8.4	67.2	13.4	3.6	7.0	
1^{45}	13.0	11.9	11.2	9.6	4.8	50.5	10.1	2.8		
2	13.9	11.0	9.2	9.6	15.8	59.5	11.9	3.2	6.0	13.0
2^{15}	14.0	17.3	18.4	11.5	14.8	76.0	15.2	4.1		
2^{30}	9.4	15.6	6.6	12.5	8.4	52.5	10.5	2.9	7.0	
2^{45}	9.3	14.6	13.0	17.2	19.3	73.4	14.7	3.9		
3	13.9	14.7	13.0	13.4	12.9	67.9	13.6	3.7	7.6	14.6
3^{15}	14.6	11.1	18.4	11.5	13.0	68.0	13.6	3.7		
3^{30}	9.3	11.1	13.9	12.5	12.1	58.9	11.8	3.2	7.0	
3^{45}	14.3	9.2	12.1	18.1	19.4	78.1	15.6	4.2		
4	11.2	19.4	10.2	16.2	9.3	66.3	13.3	3.6	7.8	14.8
4^{15}	12.6	9.4	13.0	7.7	12.1	60.8	12.2	4.0		
4^{30}	10.4	18.4	12.1	21.0	12.1	74.0	14.8	3.3	7.3	
4^{45}	11.1	23.9	13.2	8.8	23.0	80.0	16.0	4.3		
5	26.4	26.5	25.8	19.2	18.6	116.5	22.1	6.0	10.3	17.6
Total	357.2	410.7	345.9	371.7	364.3	1849.8	370.0			
% of Av.	96.54	111.0	93.24	100.5	98.44					

15-Min. Int. Av. = 11.56
½ Hr. Int. Av. = 23.12
1 Hr. Int. Av. = 46.25

TABLE 2

INTERVIEWS RECORDED AND WEIGHTING FACTORS

INTERVAL ENDING	USABLE INTERVIEWS MON	TUES	WEDS	THUR	FRI	TOTAL	AV.	% OF TOTAL	HOUR %	WEIGHT FACTOR	TRAFFIC %
9:15	-	2	0	1	0	3	.6	0.65			
9:30	1	2	1	1	2	7	1.4	1.52			
9:45	2	2	3	2	2	11	2.2	2.38			
10:00	2	0	2	1	2	7	1.4	1.52	6.07	.59	3.6
10:15	3	2	2	2	2	11	2.2	2.38			
10:30	1	2	2	3	2	10	2.0	2.16			
10:45	4	2	2	2	1	11	2.2	2.38			
11:00	1	1	2	2	2	8	1.6	1.73	8.65	.90	7.8
11:15	3	2	2	2	2	11	2.2	2.38			
11:30	2	2	2	2	2	10	2.0	2.16			
11:45	3	3	2	2	2	12	2.4	2.59			
12:00	3	4	4	3	3	17	3.4	3.67	10.80	1.21	13.1
12:15	2	4	3	3	3	15	3.0	3.24			
12:30	2	4	2	3	3	14	2.8	3.02			
12:45	5	3	3	3	4	18	3.6	3.89			
1:00	4	2	3	3	3	15	3.0	3.24	13.39	1.16	15.5
1:15	3	2	3	2	4	14	2.8	3.02			
1:30	5	2	4	4	2	17	3.4	3.67			
1:45	3	2	4	3	3	15	3.0	3.24			
2:00	4	2	2	3	3	14	2.8	3.02	12.91	1.01	13.0
2:15	3	2	4	3	4	16	3.2	3.46			
2:30	4	3	3	4	3	17	3.4	3.67			
2:45	3	2	3	4	3	15	3.0	3.24			
3:00	3	3	4	4	3	17	3.4	3.67	14.04	1.04	14.6
3:15	5	3	4	4	4	20	4.0	4.32			
3:30	3	3	4	4	4	18	3.6	3.89			
3:45	4	2	4	3	4	17	3.4	3.67			
4:00	4	4	3	3	3	17	3.4	3.67	15.55	0.95	14.8
4:15	5	4	4	3	4	20	4.0	4.32			
4:30	4	4	4	4	4	20	4.0	4.32			
4:45	3	5	4	4	4	20	4.0	4.32			
5:00	4	7	6	5	4	26	5.2	5.62	18.58	0.95	17.6
	98	87	95	92	91	463	92.6	100.00			

AV. = 14.47 2.89

FIGURE 2.

LIBRARY EXIT TRAFFIC, 15-MINUTE INTERVALS

WEEK'S AVERAGE COUNTS AND RANGES

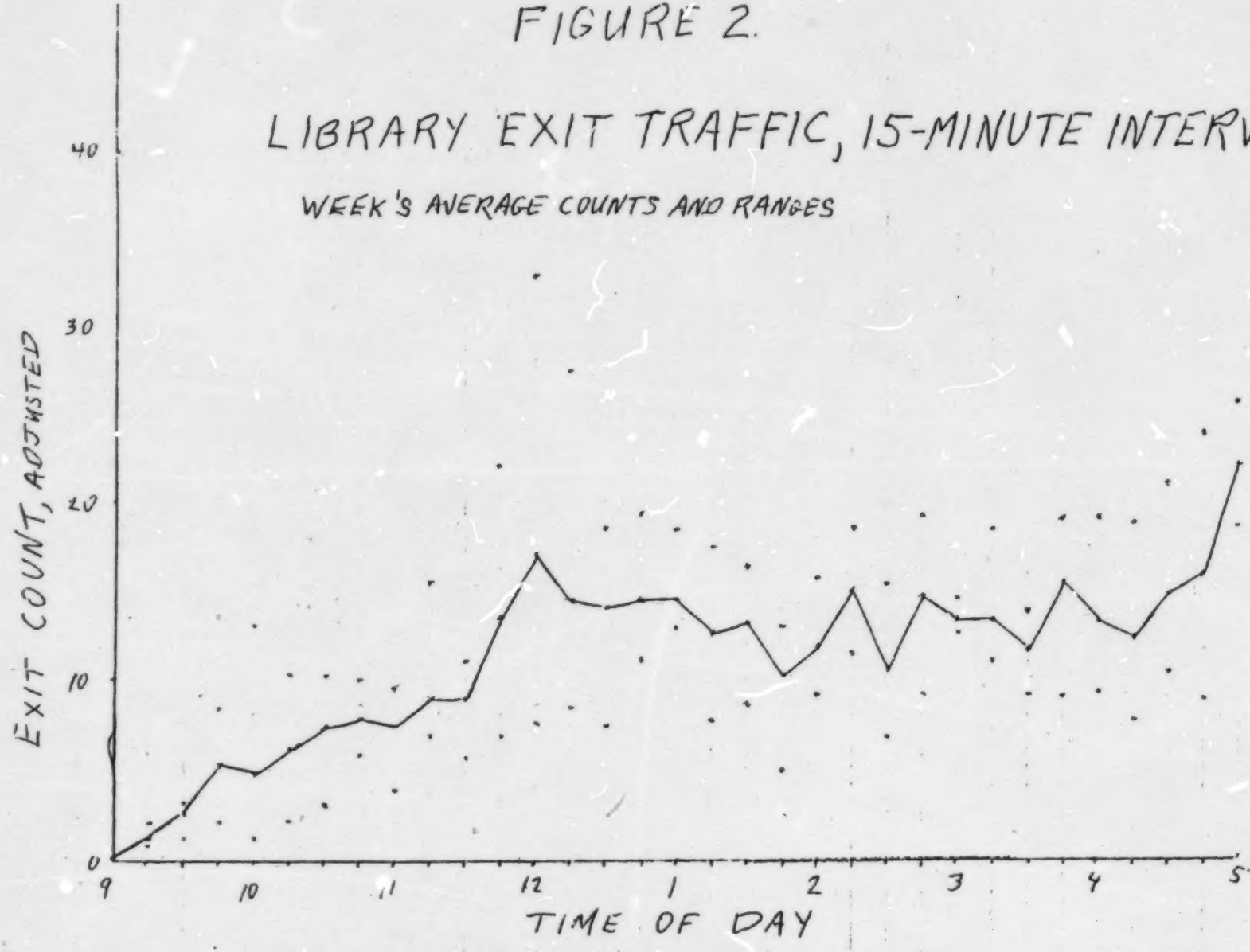
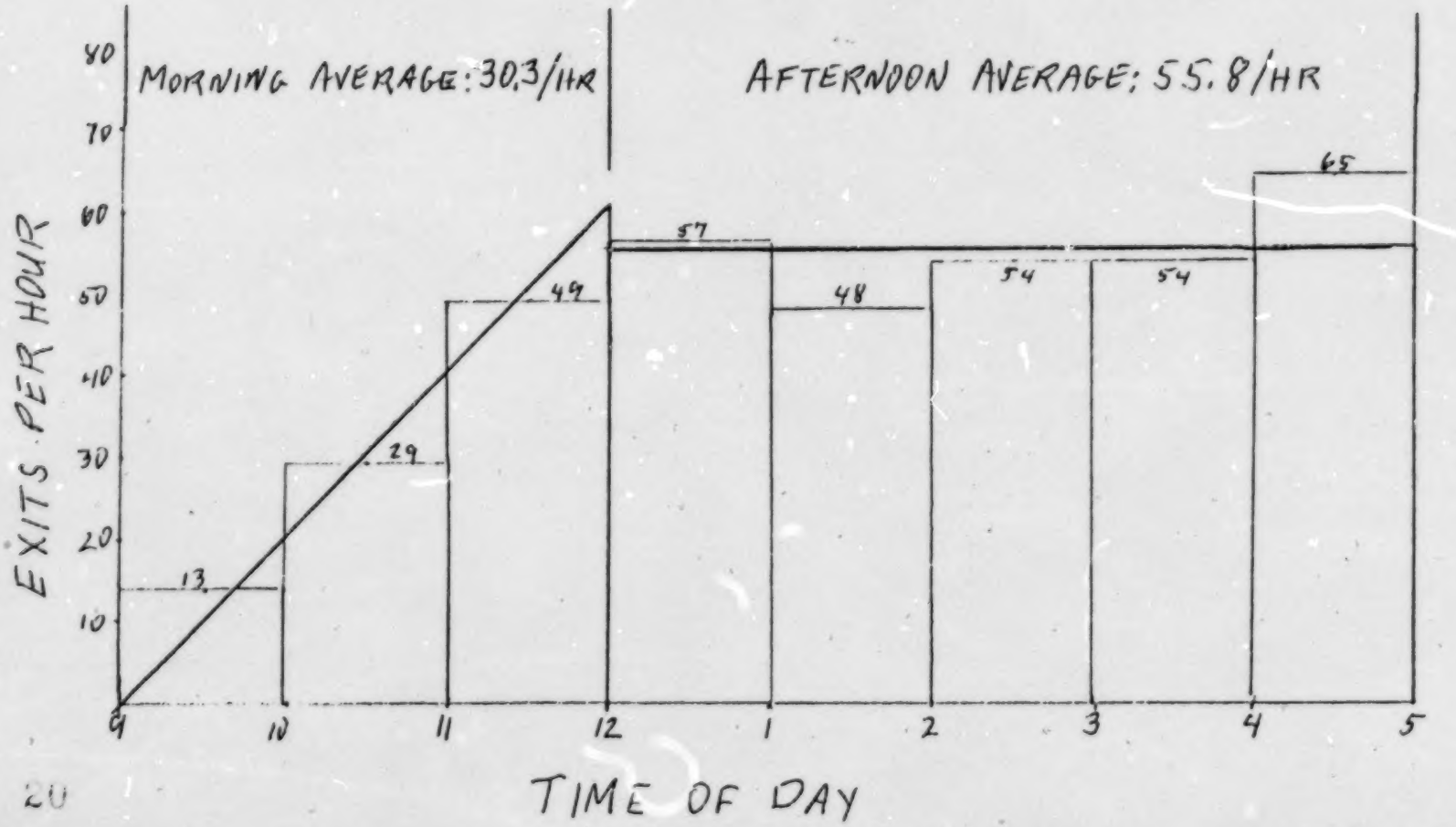


FIGURE 3.

SIMPLIFIED MODELS OF EXIT TRAFFIC



Results

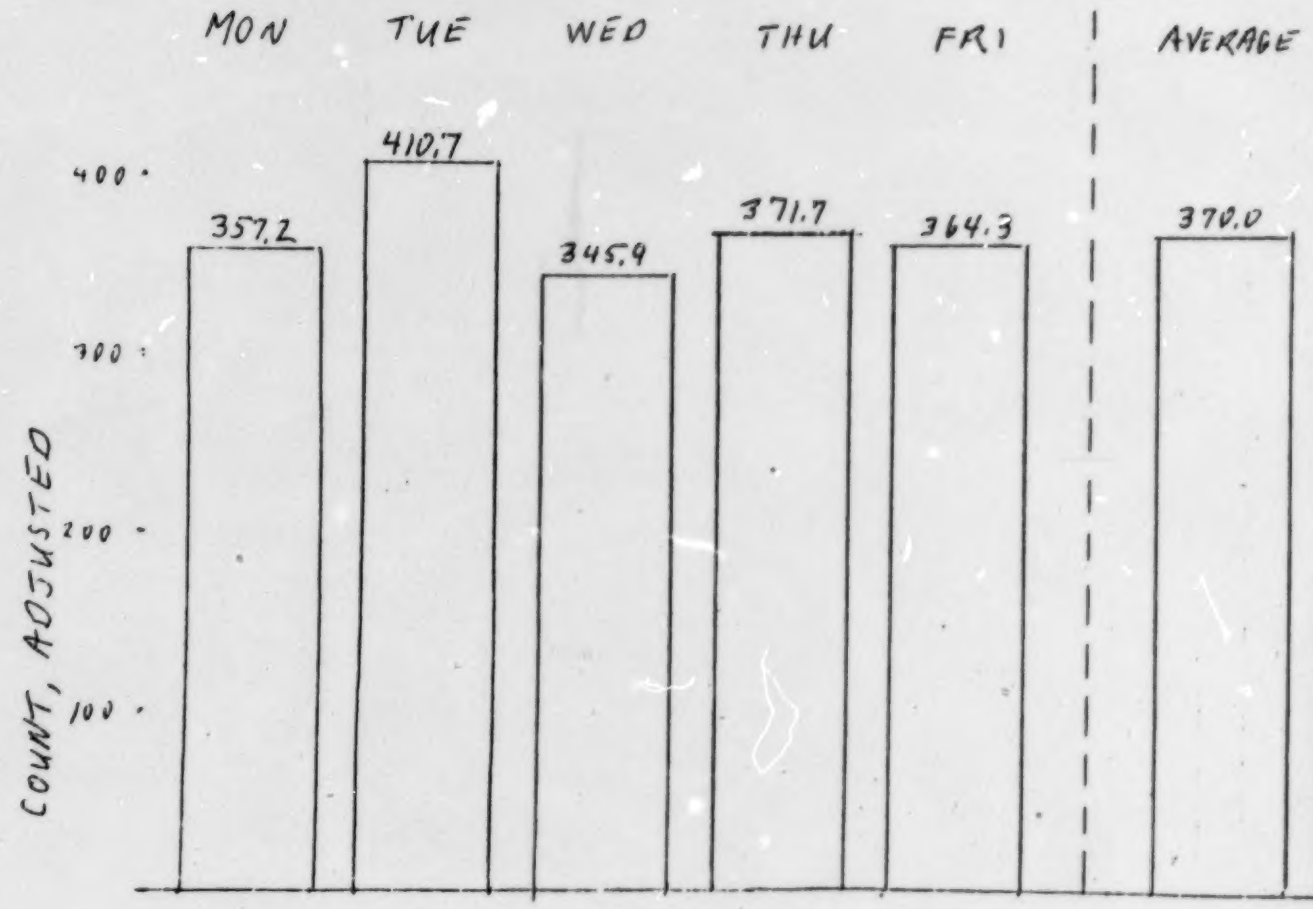
Daily Traffic of Visitors

The profile of visitor exit traffic at NYSL for each 15-minute interval in the average day is plotted in Figure 2, using adjusted traffic data in Table 1. Plotted above and below the average trace are the highest and lowest counts observed for each interval during the test week. Although there is considerable range in the measurements, the general pattern is clear. As one would expect, the exit traffic rate starts off very low in the morning, rising steadily until noon. There is some peaking around noon. During the afternoon the exit rate remains at a higher level than is seen in the morning. The exit rate becomes still higher at or approaching closing time.

A simplified characterization of exit traffic is presented in Figure 3. It divides the day into two parts — the 9 AM to noon period, when exit traffic is increasing, and the noon to 5 PM period, when exit traffic is more or less constant. It shows the average hourly traffic rate during each of these two periods. It also shows the average traffic rate for each hour within the day. For most planning and evaluative purposes, it would be satisfactory (and easier) to use the rates for full hours, rather than rates for 15-minute periods; this is especially true because of the variability of counts from day to day. For rough estimations it would be even simpler to use only two rates — morning and afternoon — with fair accuracy. The average exit traffic in the 9 to 12 period is 30.3 exits per hour; in the 12 to 5 period, it is 55.8 exits per hour.

The total of library visits (exit counts) in a day varied somewhat from day to day in the test week, but averaged 370 (Table 1). The daily variation is shown graphically in Figure 4. Tuesday traffic was far above the average (111%); Thursday traffic was average; Monday, Wednesday, and Friday traffic totals were below average. This finding is at variance with a report of traffic in the public service areas of NYSL during the period March 21 to April 1, 1977, when NYSL was in its former building (3). That report found heaviest traffic on Wednesday and lightest traffic on Tuesday. The difference

FIGURE 4.
PROFILE OF DAILY EXIT TRAFFIC



is not easily explained. It might be related to: a) the incomplete coverage of all open hours in measuring traffic for the 1977 report; b) actual different patterns in library use between the old building and new building; or c) normal random variations in traffic. More sampling would be desirable in order to test the consistency of the pattern found in this study. It should be noted, however, that the finding of heaviest user traffic on Tuesdays is strongly supported by a full-year study of traffic at a large academic research library (1, 2).

The duration of visits to NYSL was derived from the difference between the interviewee's estimate of arrival time and the recorded time of the start of an interview. The range of visit durations was extreme — from one minute to more than 7 hours. Table 3 presents frequencies of visit durations for a wide range of time intervals. These data are plotted also in Figure 5. It should be noted that the frequency distribution is roughly one than decreases exponentially with increasing duration of visits. This does not show up directly in Figure 5 because the visit durations do not progress in equal increments; if only half-hour increments were plotted, the interval from zero to one-half hour would account for 35.9 percent of all visits. The 1977 Prentice study (3) reports some data on visit duration frequency for three intervals only: up to one-half hour, one-half to one hour,and over one hour; these data are compared with data from the present study in the two rightmost columns of Table 3. The relative similarity is surprising considering the fact that the older study did not adjust the collected data for traffic rates and sampling proportions.

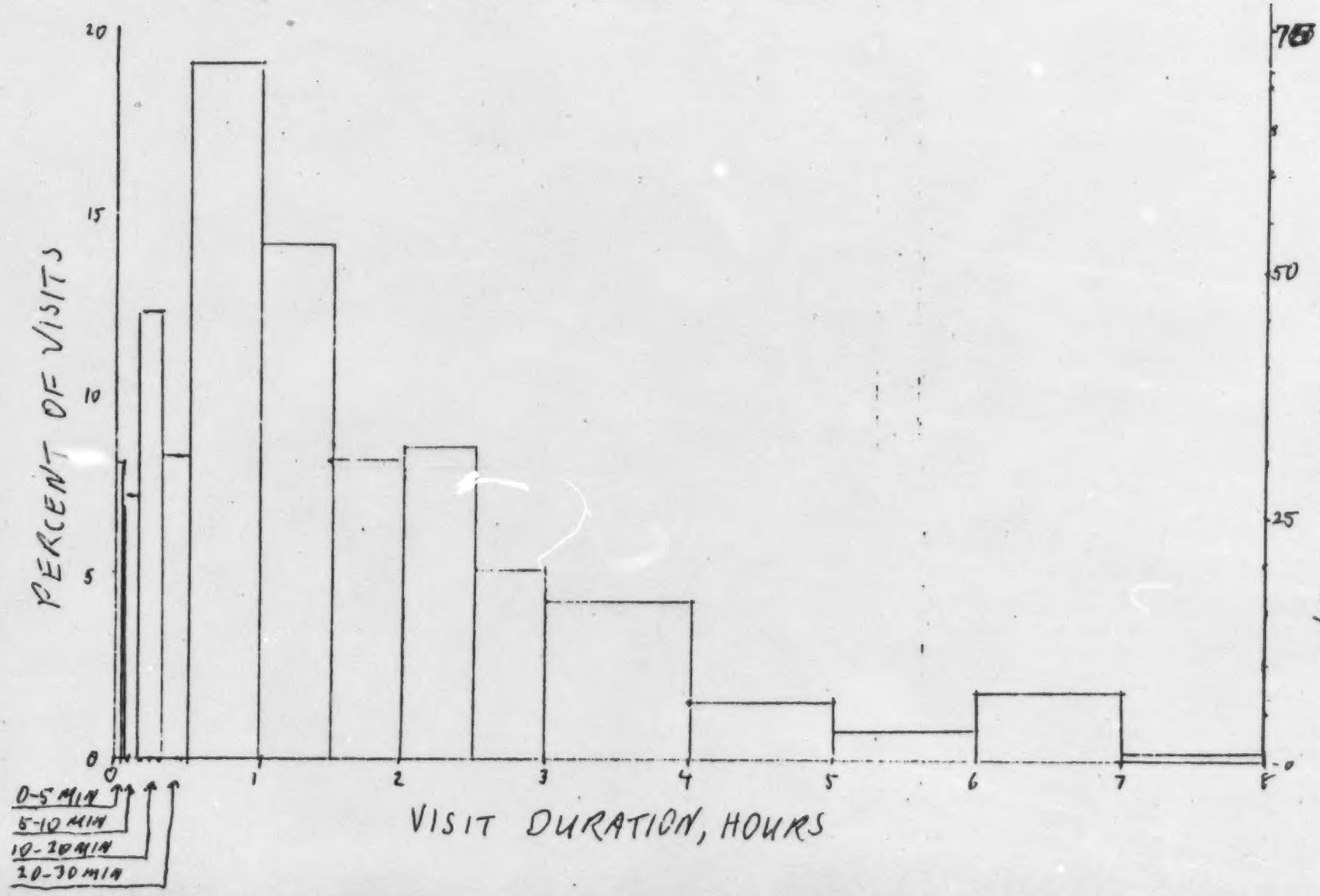
Although this study did not measure directly the visitor arrivals by time of day, information on arrival time was provided by interviewee responses. The adjusted data are given in Table 4 for half-hourly intervals from library opening time to closing time, together with corresponding data for exit traffic in the same intervals. The net change, positive or negative, in a period is shown also, and is cumulated to obtain the number of visitors occupying the library at the close of each interval. The inflow and outflow

TABLE 3.
DURATION OF VISITS

VISIT DURATION		PERCENT OF VISITS	CUMULATIVE PERCENT	GROUNDED INTERVALS	
OVER	UNDER			THIS STUDY	1977 STUDY (3)
0 MIN.	5 MIN	8.1	8.1		
5 "	10 "	7.2	15.3		
10 "	20 "	12.3	27.6		
20 "	30 "	8.3	35.9	35.9%	43.4%
30 "	1 HR	19.1	55.0	19.1%	21.4%
1 HR	1½ "	14.1	69.1		
1½ "	2 "	8.2	77.3		
2 "	2½ "	8.6	85.9		
2½ "	3 "	5.2	91.1		
3 "	4 "	4.4	95.5		
4 "	5 "	1.7	97.2		
5 "	6 "	0.9	98.1		
6 "	7 "	1.9	100.0		
7 "	8 "	0.2	100.2	45.2%	35.1%
		100.2		100.2	99.9

FIGURE 5.

FREQUENCY OF VISITS BY VISIT DURATION



data are plotted together in Figure 6. The arrival profile is almost a mirror image of the exit profile. Net changes during the middle hours of the day are very small, even though the totals of inflow and overflow traffic are highest during those hours. Occupancy of the Library by visitors is plotted in Figure 7. Peak occupancy occurs around 11 AM. The level remains only a little below peak until 3 PM, then drops off with increasing rapidity until closing time. At peak, 20 percent of the day's visitors, about 74 people, are in the Library. Average occupancy throughout the day is about 54.

Projections: Library Visits, Library Visitors

The average number of visits to NYSL per day was determined to be 370, as reported above. However, the average number of individual visitors per day is considerably less. This is because some visitors make more than one visit to the library during the course of a day. The Library does not provide eating facilities for visitors; hence, some of them leave for lunch, then return to Library. Also, some visitors make multiple daily visits to the Library as part of their work for other State agencies. One interviewee reported six previous visits in one day. The number of unique visitors per day was derived by calculating from data on multiple daily visits as reported in the interviews. Due allowance was made for the time of day when the interviews occurred. Allowance was made also for instances when visitors were interviewed more than once on the same day. The number of individual visitors on an average day was determined to be 313.

Interviews yielded data on the estimated number of daily visits which library visitors had made to NYSL during the previous 12 months. The findings are presented in Table 5. Data are adjusted to reflect only unique visitors in a day. About 16 percent of the library's visitors on an average day have not been to NYSL during the previous year at all. At the other extreme, about 19 percent of the visitors on an average day have been visiting at least once a week during the previous year.

Calculating from the data reported above, one can project the number of visits

TABLE 4.

AVERAGE TRAFFIC INFLOW, OUTFLOW, AND OCCUPANCY BY HALF-HOURLY INTERVALS

Interval	Entering		Exiting		Net Change		Occupancy	
	%	Count	%	Count	%*	Count	%*	Count
$9^{00} - 9^{30}$	8.7	32.2	0.9	3.4	+ 7.8	+28.8	7.8	28.8
$9^{30} - 10^{00}$	7.9	29.2	2.7	10.0	+ 5.2	+19.2	13.0	48.0
$10^{00} - 10^{30}$	6.7	24.8	3.7	13.5	+ 3.0	+11.3	16.0	59.3
$10^{30} - 11^{00}$	8.1	30.0	4.1	15.3	+4.0	+14.7	20.0	74.0
$11^{00} - 11^{30}$	4.4	16.3	4.8	17.8	−0.4	- 1.5	19.6	72.5
$11^{30} - 12^{00}$	5.0	18.5	8.3	30.8	−3.3	−12.4	16.3	60.1
$12^{00} - 12^{30}$	8.6	31.8	7.7	28.5	+0.9	+ 3.3	17.2	63.7
$12^{30} - 1^{00}$	6.2	22.9	7.8	28.8	−1.6	- 5.9	15.6	57.8
$1^{00} - 1^{30}$	8.4	31.1	7.0	25.9	+1.4	+5.2	17.0	62.7
$1^{30} - 2^{00}$	5.7	21.1	6.0	22.1	−0.3	-1.0	16.7	61.9
$2^{00} - 2^{30}$	8.6	31.8	7.0	25.8	+1.6	+6.0	18.3	67.7
$2^{30} - 3^{00}$	7.1	26.3	7.6	28.4	−0.5	- 2.1	17.8	66.6
$3^{00} - 3^{30}$	5.8	21.4	7.0	25.5	−1.2	−4.1	16.6	62.5
$3^{30} - 4^{00}$	4.8	17.8	7.8	28.9	−3.0	−11.1	13.6	50.4
$4^{00} - 4^{30}$	3.2	11.8	7.3	27.0	−4.1	−15.2	9.5	35.2
$4^{30} - 5^{00}$	0.8	3.0	10.3	38.2	−9.5	−35.2	0	0
	100.	370.	100.	370.			Av=47	A=54.5

*Percentage with reference to total number of visits in average day (370).

FIGURE 6.

TRAFFIC INFLOW AND OUTFLOW, HALF-HOURLY

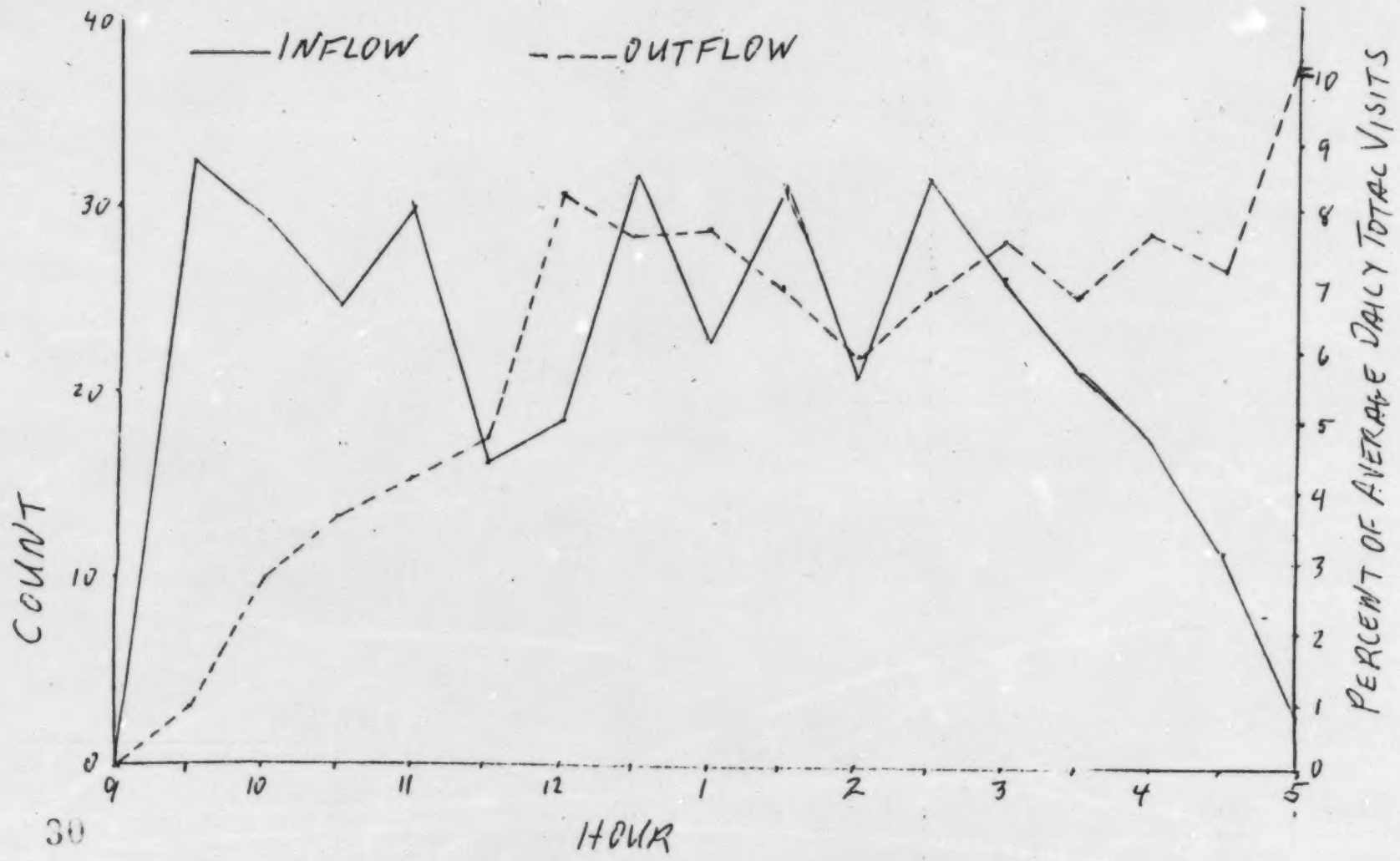


FIGURE 7.

LIBRARY OCCUPANCY, HALF-HOURLY

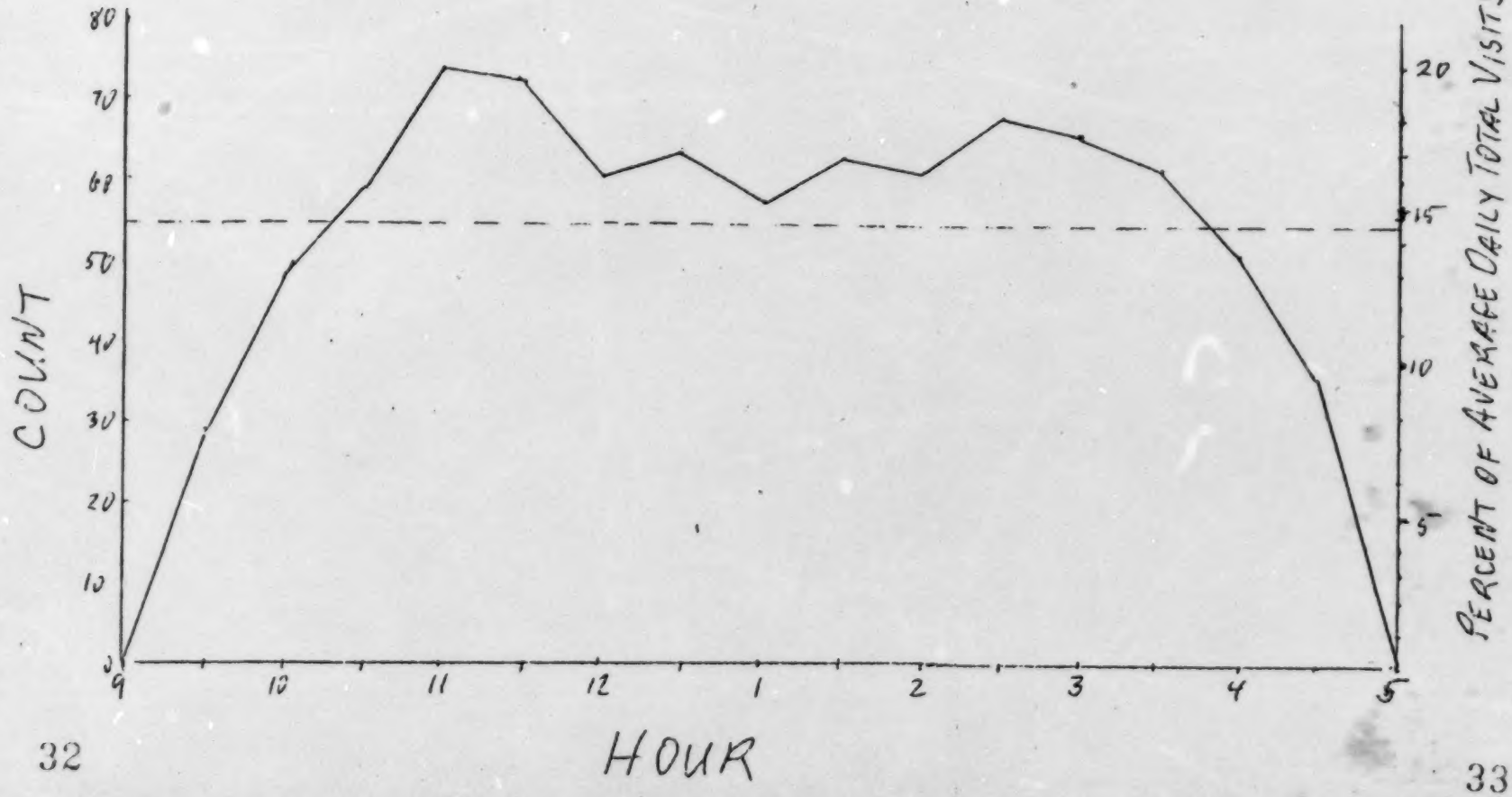


TABLE 5

FREQUENCY OF PREVIOUS VISITS

ESTIMATED NO. OF VISITS 12 MONTHS	DIFFERENT VISITORS	PERCENT OF DAILY VISITORS
0	50	16.1
1	13	4.3
2	17	5.3
3	13	4.1
4-5	26	8.2
6-10	27	8.5
11-20	45	14.5
21-50	62	19.9
51-100	27	8.6
101-150	12	4.2
151-200	8	2.5
200-253	12	3.9
	313	100.1

TABLE 6

PROJECTIONS OF VISITS AND VISITORS

	ONE DAY	ONE WEEK (5 days)	ONE MONTH (21 days)	ONE YEAR (253 days)
TOTAL VISITS	370	1,850	7,770	93,600
DIFFERENT VISITORS	313	1,270	3,790	19,800

and different visitors to NYSL for any period of time up to a year. The projections for a week, a month, and a year are given in Table 6. During a full year, the total traffic will exceed 90 thousand visits. The number of different persons visiting the library will be almost 20 thousand. Looking at this another way, a large fraction of the visits to NYSL during the course of a year are made by a very small number of persons who use the library very frequently; but, nevertheless, NYSL provides some degree of service each year to a total visitor clientele that is comparable in size to the clientele of a university library.

Visitor Interests and Affiliations

Data on the main purposes given by interviewees for visiting NYSL are presented in Table 7. The intent to look for material on some particular topic (often called "subject search") was the main intent of 35.9 percent of the visits. It should be noted that responses that indicated only an intent to do "research" were included in this category. The intent to look at a known publication ("known item search") was next most common with 16.6 percent; the intent to look for material from a particular author or source ("author search") was third with 10.7 percent. Genealogy work was the main reason given for 9.5 percent of the visits. A variety of reasons accounted for the remaining 37 percent. The categories are not strictly mutually exclusive.

The context of more than half of the visits was work related, as shown in Table 8. About 42 percent of visits were connected with New York State government; about 1.5 percent with other governments. Non-governmental work activity accounted for 10.1 percent. About 14.9 percent were connected with school activity. Personal research (i.e., unconnected with either work or school) was the context for 25.6 percent of visits.

About 52.7 percent of visits, as shown in Table 9, were by persons employed by government (7 percent in the New York Legislature; about 45.7 percent in all other government agencies, mostly in New York State government). Students made 16.4 percent of

TABLE 7

MAIN PURPOSE FOR VISIT

	PURPOSE	PERCENT OF VISITS
1.	LOOK FOR MATERIAL ON SOME TOPIC (SUBJECT)	35.9
2.	LOOK AT SOME PUBLICATION (KNOWN ITEM)	16.1
3.	LOOK FOR MATERIAL BY SOME AUTHOR OR SOURCE	10.7
4.	DO GENEALOGY WORK	9.5
5.	BORROW A BOOK	5.5
6.	RETURN A BORROWED ITEM	3.2
7.	USE QUIET PLACE TO READ/STUDY	3.1
8.	PHOTOCOPYING	2.9
9.	VERIFY A BIBLIOGRAPHIC REFERENCE	2.4
10.	SIGHTSEEING, JUST LOOKING AROUND	2.4
11.	TALK TO A LIBRARIAN	2.1
12.	ATTEND A MEETING IN LIBRARY	1.2
13.	USE SPECIAL EQUIPMENT (BLIND)	.85
14.	SOCIAL CALL	.68
15.	SELLING	.58
16.	USE DATABASE SERVICE	.53
17.	OTHER	6.8
		100.2

TABLE 8

CONTEXT OF VISIT

	CONTEXT	PERCENT OF VISITS
1.	NY STATE GOVERNMENT ACTIVITY	42.1
2.	OTHER GOVERNMENT ACTIVITY	1.5
3.	PERSONAL RESEARCH	25.6
4.	SCHOOL ACTIVITY	14.9
5.	WORK RELATED, NON-GOVERNMENT	10.1
6.	OTHER	5.8
		100.0

TABLE 9

EMPLOYMENT STATUS

	STATUS	PERCENT OF VISITS
1.	NY LEGISLATURE	7.0
2.	OTHER GOVERNMENT ORGANIZATIONS (NYS, OTHER)	45.7
3.	PRIVATE EMPLOYMENT	14.6
4.	STUDENT	16.4
5.	NONE OF THE ABOVE	16.4

TABLE 10

NY State or Government Agency Employment
of Persons Interviewed (not adjusted)

NY LEGISLATURE
- Unspecified
- Assembly
- Senate
- L.C.E.R.

JUDICIAL
- Attorney General
- Courts, Unspecified
- Commission on Corrections
- Commissioner on Judicial Conduct
- Crime Victims Compensation Board
- Office of Court Administration
- Affellate Court
- "Law"

EDUCATION DEPARTMENT
- Unspecified
- Science Service
- Archives
- Museum
- SUNYA Res Fon
- Deputy Commissioner's Office, Cultural Education
- Data Processing
- Professional Licensing
- NYS School Board
- Higher Education Services
- SUNY Central

HEALTH
- Department of Health
- Health Planning Commission
- Mental Health
- Office of Health-Science MGT
- Alcoholism

SOCIAL SERVICES
- Department of Social Services
- Office of the Forms
- Council on Children and Families
- Welfare Research Institute

(TABLE 10)

OFFICE OF GENERAL SERVICES
MESSENGER

GOVERNOR
- Lt. Gov. Office
- Task Force on Domestic Violence
- Office of Employee Relations
- Commission on Cable TV
- Gov. Office - Counsel
- Governor's Commission, Unspecified

INSURANCE DEPARTMENT
- "Agency I"

DIVISION OF BUDGET

NYS TEACHERS RETIREMENT AGENCY

ENERGY RESEARCH DEVELOPMENT OFFICE
BUREAU OF ENERGY CONSERVATION

PARKS AND RECREATION

EQUALIZATION AND ASSESSMENT
DEPARTMENT OF TAXATION

STATE HISTORIC SOCIETY
HISTORICAL SERVICES
NY NETWORK
CONSUMER PROTECTION BOARD
DIVISION OF LABS AND RESEARCH
ENVIRONMENTAL CONSERVATION
DIVISION OF MOTOR VEHICLES

(U.S.?) GEOLOGICAL SURVEY

the visits. Persons in private employment made 14.6 percent. About 16.4 percent were neither employed nor students.

The government agencies named as employers by interviewees are tabulated, without normalization or adjustment, in Table 10. The heaviest State employers of NYSL users appear to be: Education Department, Health Department, Office of General Services, Judiciary, the Legislature, and the Governor's Office.

A number of unsolicited comments regarding NYSL were made by visitors to the members of the research team during the data collection phase of this study. These comments were noted and are summarized in Table 11. Most of them came from persons who were being interviewed. The most frequent unsolicited comment was a plea to keep the library open evenings and Saturdays. Aside from the hours, the unsolicited comments indicate considerable good will, and more satisfaction than discontent with the Library's resources and services.

Cautionary Reminder

Readers are reminded that the study reported here was distinctly limited in scope, and did not attempt to study all of the users and uses of NYSL. The results should be clearly understood to represent only findings regarding persons who actually visit NYSL, and specifically the main facility (7th floor) of NYSL. Visitors to other parts of NYSL, and uses of NYSL by means of various communication channels, were not studied. Also it should be kept in mind that the study examined only one particular week of visitor activity, which may or may not be sufficiently representative of activity in other weeks or through the entire year.

TABLE 11

UNSOLICITED VISITOR COMMENTS

	COMMENT	INSTANCES
1.	LIBRARY SHOULD BE OPEN EVENINGS/WEEKENDS	7
2.	THIS IS A VERY FINE LIBRARY	3
3.	WAS DISAPPOINTED NOT TO FIND (DIRECTORIES) HERE	2
4.	WAS GIVEN EXCELLENT SERVICE BY (STAFF MEMBER)	2
5.	ELEVATORS ARE TOO SLOW	1
6.	USING NYSL BECAUSE (LOCAL ACADEMIC LIBRARY) IS POOR	1
7.	WAS MISINFORMED BY PUBLIC LIBRARY ABOUT ON-LINE SEARCH ACCESS THROUGH NYSL	1
8.	WOULD LIKE TO BE ABLE TO FIND OUT IF A BOOK IS ACTUALLY AVAILABLE TO BORROW BEFORE VISITING	1
9.	I DON'T FEEL SO BAD ABOUT PAYING TAXES WHEN I SEE THEM GOING INTO SOMETHING SO OBVIOUSLY USEFUL AS THIS SURVEY OF LIBRARY USERS	1
		19

Areas for Further Study

The results reported above do not fully exploit the data that were collected for this study. Schedule and budget limitations made it necessary to be highly selective in data analysis. Further analysis might be warranted in the future. The study collected data on approximately twenty variables of possible interest; these can be correlated one with another in virtually any combination desired. Among the correlations that were not made yet but that could be useful are: duration and frequency of visits versus user employment and user intent; type of user and type of use versus day of the week and time of day.

The test period for this study was only one week long. It is obviously dangerous to treat the results as though they are relevant throughout the entire year. In order to validate the results, or modify them to make them applicable throughout the year, it would be desirable to conduct additonal studies of this type at intervals of a few months. It would be preferable to keep the same general plan, but small modifications in research design would not be ruled out. For one thing, the proportion of visitors interviewed might well be reduced from the 25 percent rate used in the present study. If the findings in any future studies correlate strongly with earlier results, then, of course, further samplings can be made smaller and less frequent; or they can be altered to study new questions that may arise regarding use and users.

Consideration should be given to broadening the scope of any future studies to include some of the ares of NYSL use that were deliberately excluded from this study. Among the possibilities are: study of visitors to NYSL areas other than the main (7th floor) facility; study of remote use of NYSL through mail, telephone, computer network, etc.; study of specifics of user activities and user success or failure; study of specifics of collection use, reference service use, etc. The possibilities and opportunities are numerous.

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